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CIA-RDP86-00513R000102930004-2

BADANINA, A.I.; ZAVEL'GEL'SKIY, L.M.; KOLOSOVA, G.I.; MEL'NIK, Ye.M.

Improving the appearance of artificial leather. Leg.prom.17
no.9:16-17 S '57. (MIRA 10:12)
(Leather, Artificial)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102930004-2"

FIRSOVA, K.A.; PAVLOV, S.A.; BADANINA, A.I.

Dependence of surface properties and structure of leather
fiber on the grinding method used. Kozh.-obuv.prom. no.6:11-15
Je '59. (MIRA 12:9)
(Leather)

FIRSOVA, K.A., kand.tekhn.nauk; BADANINA, A.I., kand.tekhn.nauk;
PAVLOV, S.A., doktor tekhn.nauk; MOTORINA, L.V., tekhn.

Use of carboxyl-containing rubbers in the manufacture of
artificial leather. Nauch.-issl.trudy VNIIPIK no.12:41-49
'60. (MIRA 16:2)
(Leather, Artificial) (Carboxyl groups)

ZOLOTOV, V.I., inzh.; IL'INSKIY, D.Ya., inzh.; Prihimali uchastiye:
ALEKSANDROV, V.P., inzh.; SOLOV'IEV, S.S., inzh.; BADANINA,
A.I., kand.tekhn.nauk; FIRSOVA, K.A., kand.tekhn.nauk;
KOLOSOVA, G.I., mladshiy nauchnyy sotrudnik

Effect of the geometry of the screw on the conditions of the
extrusion of artificial leather. Nauch.-issl.trudy VNIIPIK
no.12:87-95 '60. (MIRA 16:2)

(Leather, Artificial)

BADANINA, A.I., kand.tekhn.nauk; ZOLOTOV, V.I., inzh.; KOLOSOVA, G.I.,
mladshiy nauchnyy sotrudnik; FIRSOVA, K.A., kand.tekhn.nauk

Use of worm machines for the formation of artificial leather
compositions. Report No.1. Nauch.-issl. trudy VNIIPIK no.13:32-
43 '62. (MIRA 18:1)

FIRSOVA, K.A., kand. tekhn. nauk; BADANINA, A.I., kand. tekhn. nauk;
ZOLOTOV, V.I., inzh.; PAVLOV, S.A., doktor tekhn. nauk

Some characteristics of leather fibers used for the
manufacture of artificial leather. Report No.3: Effect
of the relative moisture of air on the structure formation
of artificial leather. Nauch.-issl. trudy VNIIPIK no.14:
10-15 '63. (MIRA 18:12)

BADANOIU, Al.

NICOLAU, Stefan, Gh.; BADANOIU, Al.

Electrophoretic investigations in the serology of syphilis. Bul. stiint.,
sect. med. 9 no.1:89-104 1957.

(BLOOD PROTEINS, in various diseases
syphilis, primary, secondary & sero-resistant, diag. value
of electrophoresis)

(SYPHILIS; blood in
proteins, in primary, secondary & sero-resistant syphilis,
diag. value of electrophoresis)

EXCERPTA MEDICA Sec 13 Vol 13/6 Dermatology June 59

1628. THE MECHANISM OF SEROLOGICAL SYPHILIS REACTIONS - Untersuchungen zum Mechanismus der serologischen Luesreaktionen - Nicolau S. Gh., Bădănoiu Al. and Nicolau Gh. Inst. für Haut- und Geschlechtskrankh., Akad. der Wissenschaft., Bukarest - ARCH. KLIN. EXP. DERM. 1958, 207/3 (230-243) Tables 5

Experiments in artificial serological systems showed that some non-specific changes of serological syphilis reactions can be provoked by increasing the concentration of total proteins or γ -globulins which, however, affect solely the flocculation reaction. Elevation of the concentration of normal lipoids in such systems leads to changes in the CFT only, whereas a high concentration of lipoids obtained from syphilitic sera makes the CFT very distinct and the flocculation reactions, to a smaller degree, positive. Combination of the action of syphilis lipoids with that of γ -globulins leads to definite changes towards the positive, both in the CFT and in the flocculation reactions, which even reach the marks +++ or +++. The hypothesis of the lipoprotein composition of the syphilitic reagent is confirmed by these studies. The fact that the CFT is made positive by lipoprotein complexes but the flocculation reactions by γ -globulin is in favour of the duality of the antibodies of these 2 reaction methods. (XIII, 4)

SORU, Eugenia; COMOROSAN, S.; BADANOIU, Al.

The diagnostic role of antienzymes. Antistaphylokinase in several skin diseases. Probl. ter., Bucur. 10 no.4:75-81 '60.

1. Membru corespondent al Academiei R.P.R. (for Soru).
(KINASES, antagonists)
(SKIN DISEASES, diagnosis)
(STAPHYLOCOCCAL INFECTIONS, diagnosis)

NICOLAU, St.Gh., acad.; BADANOIU, Al., dr., candidat in stinte medicale

Experimental investigations concerning the mechanism of production
and the histological substrate of vascular allergids. Med. intern.,
Bucur 12 no.7:987-998 J1 '60.
(ALLERGY, experimental) (BLOOD VESSELS, diseases)

NICOLAU, St. G., acad.; BADANOIU, Al.

Experimental investigations concerning the mechanism of production
and the histopathological substratum of vascular allergids. Romanian
M Rev. no.3:61-62 '61.

(ANTIGEN-ANTIBODY REACTIONS experimental)
(BLOOD VESSELS diseases)

BADANOIU, Al.

Investigations concerning the use of gammaglobulin in the treatment of certain cutaneous staphylococcal infections. Rumanian M Rev. no.3: 63-64 '61.

(SKIN diseases) (STAPHYLOCOCCAL INFECTIONS therapy)
(GAMMA GLOBULIN therapy)

LUPU, N, Gh., academician; PAUN, R.; POPESCU, Gr.; OLARU, Cornelia; MARCUS, N.;
BADANOIU, Al.; MATEI, I.

Investigations of the secondary reactions observed in auxiliary health personnel after handling antibiotics (penicillin, streptomycin). Stud. cercet. med. intern. 3 no.3:335-342 '62.

(ANTIBIOTICS toxicology) (ALLERGY)
(OCCUPATIONAL DISEASES) (HOSPITALS)

PAUN, R.; POPESCU, I.Gr.; GHEORGHIU, T.; OLARU, Cornelia;
BADANOIU, A.; MOLNER, C.; in colaborare cu: NICULESCU, M.;
POP, E.; POPESCU, I.

Research on hypersensitivity to streptomycin in auxiliary health personnel in a tuberculosis hospital. Stud. cercet. med. intern. 4 no.4: 503-513 '63.

1. Spitalul Balotesti. (for I. Popescu).
(STREPTOMYCIN TOXICOLOGY)
(ANTITUBERCULAR AGENTS)
(DRUG ALLERGY) (TUBERCULIN REACTION)
(TUBERCULOSIS)

RADANOIU, G. ; ORADEANU, T. ; MARINESCU, D.

Cellular aggiomerated veneers.. p. 415.
(INDUSTRIA LEMNULUI. RUMANIA. Vol. 5, no. 9. Sept. 1956.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

RUMANIA / Chemical Technology, Chemical Products and H
Their Application, Part 4. - Cellulose and
Its Derivatives, Paper.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 63134.

Author : Gh. Badanoiu, T. Oradeanu.

Inst : Not given.

Title : Utilization of Reed Wastes by Pressing with
Synthetic Binders.

Orig Pub: Celuloza si hirtie, 1958, 7, No 3, 103 - 107.

Abstract: It will be possible to utilize reed wastes,
which will be cast off at the chemical com-
bine at Braila, by pressing them with a syn-
thetic binder for the production of tiles,
the properties of which are similar to those
of wood shavings. The technological process

Card 1/2

BADANOIU, Gh.; ORADEANU, T.; DUPU, M.

Particle boards from flax and hemp taws. p. 371.

INDUSTRIA LEMNULUI. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din România si Ministerul Industriei Lemnului) Bucuresti, Rumania.
Vol. 8, no. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2,
Feb. 1960

UNCL.

PANA, Gh.I., dr. Ing.; BABANOIU, Gh., Ing.

Manufacture of porous wood fiberboard in Romania. Ind lemnului
14 no.2346-51. P '63.

BADANOIU, M.

Preparation of pure silicon for the study of admixtures of impurities
for silicon semiconductors; preliminary note. p. 98. STUDII SI CERCETARI DE
FIZICA. Bucuresti. Vol. 6, no. 1, Jan./ Mar. 1955

So. East European Accessions List Vol. 5, No. 8 August, 1956

BADANOIU, M.

Modern electric cells. p. 121. STUDII SI CERCETARI DE FIZICA. Bucuresti.

Vol. 6, no. 1, Jan/Mar. 1955.

So. East European Accessions List

Vol. 5, No. 8

August, 1956

BADANOIU, M.; FITI, M.; MANTESCU, C.

Analysis of the chemically pure silicon by radioactivation. Studii
cerc chim 7 no.4:573-579 '59. (EEAI 9:7)

1. Institutul de fizica atomica al Academiei R.P.R., Bucuresti.
(Semiconductors) (Silicon) (Radioisotopes)

COJOCARU, V.; CRISTU, M.; DORCIOMAN, D.; BADANOIU, M.

The γ -spectrometric analysis of the impurities radioactivated in the silicon for semiconductors. Studii cerc fiz 11 no.2:447-454 '60.
(EEAI 10:1)

(Silicon) (Semiconductors) (Radioactivity)
(Gamma rays) (Spectrometer)

STOICOVICI, E.; BACIU, G.; BADANOIU, M.; CIONTEA, N.; HALTRICH, S.

The betatron acceleration chamber of the Institute of Atomic
Physics of Bucharest. Studii cerc fiz 13 no.3:401-409 '62.

1. Institutul de fizica atomica, Bucuresti.

BADANOV, A.P.

Incense cedar on the Black Sea coast of the Caucasus.
Biul. Glav. bot. sada no.55:33-34 '64.

(MIRA 18:11)

1. Nauchno-issledovatel'skaya opytnaya stantsiya
subtropicheskogo lesnogo i lesoparkovogo khozyaystva,
Sochi.

BADANOV, A.P.

Influence of growth stimulators on the increase of frost resistance in eucalypt seedlings. Biul. Glav. bot. sada no.50:91-93 '63.(MIRA 17:1)

l. Abkhazskaya lesnaya optychnaya stantsiya Instituta lesa Akademii nauk Gruzinskoy SSR, g. Ochamchire.

BADANOV, G., arkitektor; ROZENBERG, Ya., inzh.

Large-panel houses using elements with a low cement content. Na
stroi. Ros. no.7:30-32 Jl '61. (MIRA 14:8)
(Apartment houses)

USSR / Zooparasitology. Ticks and insect-vectors of disease pathogens

G-3

Abs Jour : Referat.Zh.Biol., No 2, 1958, 5422

Abstract : preservation on surfaces of treated objects. Increasing the length of contact of flies with surfaces treated by DDT increases the preparation's effectiveness only when it is applied in a proper form and dosage. However, in the use of dust to increase the mortality of flies, the increase of surface exposure has a greater significance than an increase in DDT concentration.

Card 2/2

BADAKH, M. I.

(DDT)
"The Most Important Insecticides of Recent Years," (Lecture
Pravda Vostoka, 27 June 1947, Tashkent

TI 34771

BADANOV, M. I., Uzbek Institute of Epidemiology and Microbiology,

"Hot Vapor Mixtures as a Means of Disinfection," Gig. i San., No. 2,
1948.

BADANOV, M.I.

Air disinfection in aerogenous infections. Vop.kraev.pat. no.4:153-
162 '54. (MIRA 9:12)

(RESPIRATORY ORGANS—DISEASES)
(AIR--PURIFICATION)

✓ The resistance of the housefly to DDT. M. I. Badanov
(Sci. Research Inst. Vaccines and Serums, MINISTRY OF HEALTH,
U.S.S.R., Tashkent). *Msd. Parastiol. i Perazilar. Bolchi* CH
24, 170-4(1955).—Lab. expts. carried on during 4 years indicate a gradually developing resistance of the housefly to DDT applied either as emulsion or solo. The females are more resistant than the males. A. S. Mirkin

EXCERPTA MEDICA Sec 17 Vol 5/3 Public Health Mar 59

1087. DISINFECTION OF SEWAGE (Russian text) - Badanov M.I., Nurmatov V.N., Kalinina E.F. and Sinyashin N.I. - VOPR.KRAEV. PATOL.AKAD.NAUK UZ. SSR 1956, 8 (164-165)

The use of chlorine preparations for the disinfection of sewage is very costly and makes it unsuitable for use as a fertilizer. One of the authors (N.I.Sinyashin) has proposed to use for disinfection of sewage some of the industrial emissions (nitrous oxides, sulphur dioxide, formaldehyde and/or a combination of these gases). A series of tests demonstrated high bactericidal properties of nitrogen and sulphur oxides in respect of *E.coli*, *S.typhi* and microbes of dysentery; they are effective when used either separately or combined. In laboratory practice, the following requirements are essential for the satisfactory disinfection of sewage waters: mixing of a substrate with a combination of nitrogen and sulphur oxides with a dosage of 74 mg. of the former and 46 mg. of the latter per litre, and exposure of not less than 10 min. (S)

BADANOV, M.I.

Insecticidal activity of preparations as related to surfaces
treated and to the form of preparation used. Med.paraz. i
paraz.bol. 27 no.6:730 N-D '58. (MIRA 12:2)

1. Iz Tashkentskogo nauchno-issledovatel'skogo instituta vaktain
i syvorotok.
(INSECTICIDES)

BADANOV, M.I., prof.

Elements of epidemiology in the works of Ibn Sina. Med. zhur. Uzb.
no.8:68-74 Ag '61. (MIRA 15:1)
(AVICENNA, 980? - 1037?) (EPIDEMIOLOGY)

BADANOV, K.A.

Effect of heavy water on plants. K. A. Badanova (K. A. Timiryazev Inst. Plant Physiol.). *Fiziol. Rastenij* 3, 43-8 (1956).—D₂O at 20% concn. or higher represses plant development during early stages of growth (wheat, pea, sunflower); the effect parallels the concn. of D₂O. It also represses the activity of papain, peroxidase, and sucrase. Seeds of sunflower are more resistant to D₂O than peas; wheat is intermediate. Thus in expts. with D₂O its concn. should be kept under 20%. G. M. Kosolapoff

Pada Nya, PN.

✓ Significance of viscosity of protoplasm in resistance of plants to high and low temperatures. P. J. C. A. T. A. T. A.

of plants to high and low temperatures. Increase in the viscosity of the protoplasm in increase in the resistance of plants to high and low temperatures. Increase in the viscosity of the protoplasm in increase in the resistance of plants to high and low temperatures. Increase in the viscosity of the protoplasm in increase in the resistance of plants to high and low temperatures.

Badanova, K. A.

AUTHOR: Badanova, K. A.

20-6-39/42

TITLE: Water Uptake by Plants as Related to Structural and Hydrophilic Viscosity of the Protoplasm (Vodnyy rezhim rasteniy s tochki zreniya strukturnoy i gidrofil'noy vyazkosti protoplasmy)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 6, pp. 1033 - 1035 (USSR)

ABSTRACT: The author appoints that the cations and anions of salts do not only influence differently the colloido-chemical characteristics of the protoplasm, but that they also influence the resistance of the plants being under disadvantageous life-conditions. She assumes that the cations exercise a certain influence on the swelling of the cell-colloids; the effect of the anions expresses itself by the electrostatic forces of the side chains of the albumen molecules. All that caused to carry out the investigation of the water uptake, corresponding to the effect of individual ions on the plasm. Water of different form and the degree of hydrophily of the colloids served as variation index of the water uptake of the plants. The respiration intensity served as total index of the variation of the metabolism. Table 1 shows the results. As can be seen from this, the water content decreases with few exceptions in the leaves

Card 1/3

20-6-39/42

Water Uptake by Plants as Related to Structural and Hydrophilic Viscosity
of the Protoplasm

prepared, in comparison to the control-leaves. In connection with the content of different water forms, the degree of hydrophily of the protoplasm varies, too. In connection with the content of the protoplasm colloids the respiration intensity of prepared leaves much varies. Table 2 shows the variation of the respiration intensity at experiment- and control-leaves of the sun-flower. A comparison of the tables 1 and 2 shows that the calcium- and sodium-cation increase the water content of the cell colloids. Simultaneously the calcium-cation decreases the respiration intensity, the sodium-cation, however, does not vary the respiration intensity. The anions of the lemon- and the oxalic acid noticeably decrease the water content of the colloids. Thereby, in one case, they increase (species Saratovskiy 169) the respiration intensity, whilst in another case they do not cause any essential variations. The variability of the water content of the plasm colloids and of the respiration intensity show the heterogeneity of the effect of cations and anions on the protoplasm. The increase of protoplasm viscosity of plants causes a different resistance against the disadvantageous milieu-conditions. This makes the author suppose the existence of hydrophilic and structural viscosity of plants. Con-

Card 2/3

Water Uptake by Plants as Related to
of the Protoplasm

20-6-39/42
Structural and Hydrophilic Viscosity

sequently, the increase of the protoplasm viscosity caused by the calcium-cation is followed by an increase of the water content within the plasm and by a decrease of the respiration intensity. At the increase of the plasm viscosity by the anions of the lemon- and oxalic acid a contrary behavior is observed. That all confirms the assumption that the plant has various kinds of protoplasm viscosities. The hydrophilic viscosity of the protoplasm is characterized by an increased water content of the plasm and by the decreased metabolism. For the structural viscosity of the protoplasm a low water content and insignificant variations of the respiration intensity are characteristic. There are 1 figure, 2 tables, and 7 Slavic references.

ASSOCIATION: Institute for Physiology of Plants imeni K. A. Timiryazev AN USSR
(Institut fiziologii rasteniy im. K. A. Timiryazeva Akademii nauk SSSR)
PRESENTED: June 25, 1957, by A. L. Kursanov, Academician
SUBMITTED: June 24, 1957
AVAILABLE: Library of Congress
Card 3/3

VARTAPETYAN, B.B.; BADANOVA, K.A.

Rate of water exchange in dormant plant organs. Fiziol. rast. 10
no.1:106-108 Ja-F '63. (MIRA 16:5)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva AN SSSR,
Moskva.

(Dormancy in plants)
(Plants, Effect of water on)

BADANOVA, Ye.B.

Late solitary metastasis of Wilms' tumor invading the lungs in
a child. Vest. rent. i rad. 40 no.6:63-64 N-D '65.

(MIRA 19:1)

1. Rentgenovskoye otdeleniye (zav. S.S. Ryzhik) Detskoy gorodskoy
klinicheskoy bol'nitsy No.1, Moskva.

BADANOV, V.I.

Causes of divergency in the ash content of coke at the
Douban coking plant. N. G. Arinov and I. I. [illegible].
Coke and Chem. (U. S. S. R.) 4, No. 11, p. 10 (1944).
The difference between the actual and the calc'd. ash
contents of cokes in relation to the resp. coals is ascribed
to shortcomings of processing as partial combustion
of coke in the furnace, the use of hard water in coke
quenching, etc., and to the faulty procedure of analysis.
Methods of taking, prep., and analyzing samples of coal v
and coke are described.

21



BADANOVA, Ye.A.

Role of mineral fertilizers in irrigation farming on Chestnut
soils of Buryat-Mongolia. Pochvovedenie no.10:55-58 '60.
(MIRA 13:10)

1. Pochvennyy inistitut imeni V.V. Dokuchayeva Akademii nauk
SSSR.
(Buryat-Mongolia--Soils) (Fertilizers and manures)

BADANOVA, Ye.A.

Field method for determining nitrates in nonsalinized soils.
Pochvovedenie no.8:93-101 Ag '61. (MIRA 14:11)

1. Pochvennyy institut imeni V.V.Dokuchayeva AN SSSR.
(Soils--Nitrogen content)
(Nitrates--Analysis)

15.8102

87236

S/171/60/013/004/003/004

E142/E265

AUTHORS: Vartanyan, S. A., Vardapetyan, S. K. and
Badanyan, Sh. O.

TITLE: The Chemistry of Vinylacetylene. Part 23: Synthesis
of Vinylacetylene Phenols and their Methyl Esters

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Khimich-
eskiye nauki, 1960, Vol. 13, No. 4, pp. 251-258

TEXT: The synthesis of the above mentioned compounds,
containing alkyl, alicyclic and heterocyclic radicals, is
described. They were prepared by condensing phenol and anisole
with secondary vinylacetylene carbinols in the presence of
phosphoric acid and heating the mixture for 40 to 50 hours to a
temperature of 60 to 65°C. The formed vinylacetylene phenols
absorbs (in the presence of a platinum catalyst and in an absolute
ethanol medium) three molecules of hydrogen so that saturated
p-alkylphenols are obtained. Divinylacetylene enters into a
similar condensation reaction with phenol, under analogous
conditions. 1-Vinylethynylcyclohexan-1-ol can also be condensed
with phenol and anisole and 1-vinylethynyl-1-p-alkoxy or

Card 1/2

87236
S/171/60/013/004/003/004
E142/E265

The Chemistry of Vinylacetylene. Part 23: Synthesis of
Vinylacetylene Phenols and their Methyl Esters

oxyphenylcyclohexane are formed; these are hydrogenated to the saturated alicyclic phenol or its methyl ester, respectively. The structure of the vinylacetylene phenols was proved by oxidation of the 1-p-methoxyphenyl-1-vinylethynyl cyclohexane. The alkylation of phenol and anisole with 4-vinylethyneyltetrahydro-4-pyanols proceeds in an analogous manner. Physical data, percentage composition and analytical details of the synthesised compounds are given and also set out in a 2-page table. There are 1 table and 7 references; 6 Soviet and 1 non-Soviet.

ASSOCIATION: Institut organicheskoy khimii AN ArmSSR
(Institute for Organic Chemistry, AS ArmSSR)

SUBMITTED: May 28, 1960

Card 2/2

S/079/62/032/010/003/008
D204/D307

AUTHORS: Vartanyan, S.A., Vardapetyan, S.K., and Badanyan, Sh.O.

TITLE: The chemistry of vinylacetylene. XXX. The synthesis and transformations of vinylacetylenic cresols and their esters

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 10, 1962;
3188 - 3195

TEXT: The present continuation of earlier work, in which it was shown that vinylacetylenic derivatives of phenol and anisole may be prepared by alkylation of the phenols with various vinyl-ethinyl carbinols, was aimed at correlating the structure of the carbinols to their alkylating properties. Phenol, o-cresol and its esters were alkylated with vinylethynyl carbinols containing alkyl, alicyclic and heterocyclic radicals. The reactions were carried out in the presence of H_3PO_3 , under reflux, at 65-70°C, for 30-50 hours, obtaining the corresponding p-substituted compounds in 30-80 % yields. The p-substituted vinylacetylenic phenols were readily este-

Card 1/2

The chemistry of vinylacetylene ...

S/079/62/032/010/003/008
D204/D307

rified, in 70-85 % yields, with the corresponding alkyl halides, in the presence of NaOH, on boiling for 15-20 hrs. The corresponding saturated o-cresols and their esters could be obtained by hydrogenating the p-substituted compounds, either over a Pt catalyst, at 1 atm, or over Raney nickel, at 15-17 atm. There are 3 tables.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Armyanskoy SSR (Institute of Organic Chemistry of the Academy of Sciences, Armenian SSR)

SUBMITTED: July 21, 1961

Card 2/2

BADANYAN S. A.

VARTANYAN, S.A.; BADANYAN, S. A.

Addition of secondary amines to vinyl-acetylene alcohols. Izv.
AN Arm. SSR, Ser. Fizmat nauk 9 no.10:107-111 '56. (MLRA 10:4)

1. Khimicheskiy institut AN Armyanskoy SSR.
(Vinyl compounds) (Amines)

13267AN INTEL 287, 40

VARTANYAN, S.A.; ZHAMAGORTSYAN, V.N.; BADANYAN, Sh.O.

Chemistry of vinylacetylene. Report No.4: Synthesis and transformation of 1-alkoxypentene-4-yne-2. Izv. AN Arm. SSR Ser. khim. nauk 10 no.2:125-130 '57. (MIRA 10:12)

1. Khimicheskiy institut AN ArmSSR.
(Pentene)

Kharkov, 1957.

VARTANYAN, S.A.; BADANYAN, Sh.O.

Chemistry of vinyl acetylene. Report No.6: Addition compounds of
secondary amines with vinyl acetylene alcohols. Izv. AN Arm. SSR.
Ser. khim. nauk v.10 no.5:347-352 '57. (MIRA 11:1)

1. Khimicheskiy institut AN ArmSSR.
(Butenyne)

VARTANYAN, S.A.; BADANYAN, Sh.O.

Chemistry of vinyl acetylene. Report No.7: Addition of
dimethylamine to divinylacetylene hydrocarbons. Izv.AN Arm.
SSR.Khim.nauki 11 no.5:343-350 '58. (MIRA 12:1)

1. Institut organicheskoy khimii AN ArmSSR.
(Acetylene) (Dimethylamine)

VARTANYAN, S.A. • BADANYAN, Sh.O.

Chemistry of vinylacetylene. Report No.10: Addition of secondary amines to ethers of vinylacetylene alcohols and hydration of the formed ethers of acetylene amino alcohols. Izv. AN Arm.SSR. Khim.nauki 11 no.3:185-191 '58. (MIRA 11:11)

1. Institut organicheskoy khimii AN ArmSSR.
(Ethers) (Acetylene)

S/171-x/60/013/002-3/003/005
E142/E435

AUTHORS: Vartanyan, S.A. and Badanyan, Sh.O.

TITLE: The Chemistry of Vinyl Acetylene, Part XX.
Addition of Amines and Ammonia to Vinyl Acetylene
Tetrahydro-4-Pyranol and Tetrahydro-4-Thiopyranol

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR,
Khimicheskii nauki, 1960, Vol.13, No.2-3, pp.133-140

TEXT: The addition of amines to vinyl acetylene alcohols containing tetrahydro-thiopyran- and tetrahydro pyran rings is described. Amino acetylene tetrahydro pyranols and -thiopyranols are active vulcanizing agents and valuable starting materials for the synthesis of various physiologically-active substances. The vinyl acetylene alcohols were prepared by the method described by I.N.Nazarov, A.I.Kuznetsova and A.I.Gurevich (Ref.2). The amines and the 4-vinyl ethynyl-4-tetrahydro-thiopyranols were heated with a 25% aqueous mixture of dimethylamine and vinyl acetylene tetrahydro pyranols in a closed metal bomb over a water bath for 30 to 35 hours; 4-(4'-dimethylamino-2'-butynyl)-tetrahydro-4-thiopyranols were formed. The vinyl acetylene tetrahydro-4-pyranols were prepared by an analogous process.

Card 1/3

S/171-x/60/013/002-3/003/005
E142/E435

The Chemistry of Vinyl Acetylene. Part XX. Addition of Amines and Ammonia to Vinyl Acetylene Tetrahydro-4-Pyranol and Tetrahydro-4-Thiopyranol

The vinyl acetylene pyranols were obtained by condensing the vinyl acetylene with tetrahydro-4-pyrans; the latter were synthesized by hydrating the corresponding vinyl acetylene alcohols in a 7% H₂SO₄ medium in the presence of mercuric sulphate. When aqueous solutions of methyl and ethyl amines and also of dimethyl amine and piperidine are heated with the above-mentioned 4-divinyl ethynyl tetrahydro-4-pyranols, the corresponding aminoacetylene pyranols are formed. The synthesized amino acetylene tetrahydro-4-pyranols and -thiopyranols are converted in an ethyl alcohol medium, in the presence of a platinum catalyst, into the corresponding saturated compounds. Hydrogenation of 4-(1'-amino-2'-butynyl)-2,2-dimethyl tetrahydro-4-pyranol leads to the decomposition of this amine and 4-butyl-2,2-dimethyl-tetrahydro-4-pyranol is formed. Difficulties experienced during the hydrogenation of thiopyranols were obviously due to the poisoning of the catalyst. The preparation of the various compounds is described in detail and physical and analytical data Card 2/3

S/171-x/60/013/002-3/003/005
E142/E435

The Chemistry of Vinyl Acetylene. Part XX. Addition of Amines and Ammonia to Vinyl Acetylene Tetrahydro-4-Pyranol and Tetrahydro-4-Thiopyranol

are given. There are 1 table and 6 Soviet references.

ASSOCIATION: Institut organicheskoy khimii AN ArmSSR
(Institute of Organic Chemistry, AS ArmSSR)

SUBMITTED: December 21, 1959

✓

Card 3/3

VARTANYAN, S.A.; BADANYAN, Sh.O.

Chemistry of vinylacetylene. Report No. 21: Synthesis and conver-
sions of vinylacetylenic amines. Izv. AN Arm. SSR Khim. nauki 13
no.2/3:141-145 '60. (MIRA 13:10)

1. Institut organicheskoy khimii AN ArmSSR.
(Butenyne) (Amines)

VARTANYAN, S.A.; VARDAPETYAN, S.K.; BADANYAN, Sh.O.

Chemistry of vinylacetylene. Report No.23: Synthesis of vinyl-acetylene phenols and their methyl esters. Izv. AN Arm. SSR. Khim. nauki 13 no.4:251-258 '60. (MIRA 13:12)

1. Institut organicheskoy khimii AN ArSSR.
(Acetylene compounds) (Phenols)

BADANYAN, Sh. O.

Cand Chem Sci - (diss) "Study in the area of acetylenic amino-compounds. (New method of the synthesis of acetylenic amines)." Yerevan, 1960. 19 pp; (Ministry of Higher and Secondary Specialist Education USSR, Yerevan State Univ); 150 copies; price not given; list of author's works on p 19 (12 entries); (KL, 5-61 sup, 175)

VARTANYAN, S.A.; BADANYAN, Sh.O.

New possibility of synthesizing vinylacetylenic alcohols. Izv.
AN Arm.SSR.Khim.nauki 14 no.1:79-80 '61. (MIRA 15:5)
(Alcohols)

S/081/62/000/017/045/102
B153/B186

AUTHORS: Vartanyan, S. A., Vardapetyan, S. K., Badanyan, Sh. O.

TITLE: The chemistry of vinylacetylene. Communication XXVI.
Synthesis of aminoacetylene phenols and their esters

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 184, abstract
17Zh118 (Izv. AN ArmSSR. Khim. n., v. 14, no. 3, 1961,
255-260 [summary in Arm.])

TEXT: It is established that amines combine with vinylacetylene phenols and their esters to form aminoacetylene phenols and their esters according to the scheme: $n\text{-ROC}_6^H_4\text{CR}'(\text{CH}_3)\text{C}=\text{CCH}=\text{CH}_2$ [Ia-j; in all cases $\text{aR} = \text{H}$, $\text{R}' = \text{R}'' = \text{R}''' = \text{CH}_3$; $\text{bR} = \text{H}$, $\text{R}' = \text{C}_2\text{H}_5$, $\text{R}'' = \text{R}''' = \text{CH}_3$; $\text{cR} = \text{H}$, $\text{R}' = \text{CH}_3$, $\text{R}'' = \text{H}$, $\text{R}''' = \text{C}_2\text{H}_5$; $\text{dR} = \text{H}$, $\text{R}' = \text{CH}_3$, $\text{R}'' + \text{R}''' = (\text{CH}_2)_5$; $\text{eR} = \text{H}$, $\text{R}' = \text{C}_2\text{H}_5$, $\text{R}'' + \text{R}''' = (\text{CH}_2)_5$; $\text{fR} = \text{R}' = \text{R}'' = \text{R}''' = \text{CH}_3$; $\text{gR} = \text{R}'' = \text{R}''' = \text{CH}_3$, $\text{R}' = \text{C}_2\text{H}_5$; $\text{hR} = \text{C}_2\text{H}_5$, $\text{R}' = \text{R}'' = \text{R}''' = \text{CH}_3$; $\text{iR} = \text{C}_3\text{H}_7$, $\text{R}' = \text{R}'' = \text{R}''' = \text{CH}_3$; $\text{jR} = \text{C}_4\text{H}_9$, $\text{R}' = \text{R}'' = \text{R}''' = \text{CH}_3$] + $\text{HNR''R'''(IIa-j)} \rightarrow \text{n-ROC}_6^H_4\text{CR}'(\text{CH}_3)\text{CH}_2\text{C}=\text{CCH}_2\text{NR''R'''}$ (IIIa-j); IIIa-b, f-g are reduced to saturated aminophenols and their

Card 1/3

The chemistry of vinylacetylene...

S/081/62/000/017/045/102
B158/B186

esters: IIIa-b, f-g + 2H₂ → nROC₆H₄CR(CH₃)(CH₂)₄NR"R" (IV-VII,
IVR=H, R'=R"=R^b=CH₃, VR=H, R'=C₂H₅, R"=R"=CH₃; VIR=R'=R"=R"=CH₃; VII R=R"=R"
=CH₃, R'=C₂H₅). Aminoketone is obtained from IIIe by hydration:
IIIe → n-CH₃OC₆H₄C(CH₃)₂CH₂CO(CH₂)₂N(CH₃)₂ (VIII). I and an aqueous
solution of II are heated for 60-65 hr at ~100°C in a sealed ampoule;
excess II is removed at ~45°C in a weak vacuum (IIIe-j is salted out with
K₂CO₃), the residue is extracted with ether, and III is isolated by
distillation (the quantity of initial I in g, II in g, reaction time in
hours, the IIIa-j obtained, yield %, b.p. in °C/mm, n_D²⁰, and d₄²⁰ are
given): 50, 200, 60, a, 62, 145-146/3, 1.5426, 0.9836; 25, 150, 65, b, 50,
147/2.5, 1.5470, 0.9925 (picrate, m.p. 124-125°C); 10, 33, 50, c, 15,
193/2, -, -; 10, 35, 46, d, 15, 195/3, -, -; 20, 180, 80, e, 25, 160-162/4,
1.5465, 0.9836; 30, 180, 60 f, 50, 153-154/5, 1.5258, 0.9655; 10, 120, 70,
g, 30, 152/3, 1.5344, 0.9785 (picrate, m.p. 93-95°C); 20, 180, 70, h, 25,
145-146/5, 1.5292, 0.9725; 20, 180, 75, i, 35, 1°0-151/3, 1.5150, 0.9480;
17, 170, 75, j, 35, 178-180/6, 1.5380, 0.9725. IIIa-b, f-h are hydrated in

Card 2/3

The chemistry of vinylacetylene...

S/081/62/000/017/045/102
B158/B186

an alcohol solution in the presence of Pt. The quantity of the corresponding initial IIIa-b, f-h is given in g, as well as the amount of H₂ in litres, reaction time in hours, the IV-VII obtained, yield %, b.p. in °C/mm, n_D²⁰, d₄²⁰, m.p. of picrate in °C: . 3.5, 0.64, 15, IV, 78, 145-146/3.5, 1.5095, 0.9529, -; 2.5, 0.49, 22, V, 88, 147-150/5, 1.5079, 0.9332, 181-182; 1.5, 0.28, 26, VI, 79, 145/2, 1.5108, 0.9505, 118; 2, 0.41, 28, VII, 80, 0, m.p. 95-97°C; 0, 0; -. For hydration with 70 ml 10% H₂SO₄, 2 g H₂SO₄ and 5 g of IIIf are mixed for 8 hr at 60-65°C, salted out with K₂CO₃, extracted with ether, dried with MgSO₄, and VIII is obtained with a m.p. of 163-164°C/5 mm, n_D²⁰ 1.5172, d₄²⁰ 1.0016; the semi-carbazone is liquid. For Communication XXV, see RZhKh; 1962, 13Zh56,
[Abstracter's note: Complete translation.]

Card 3/3



8/081/62/000/017/046/102
B158/B186

AUTHORS: Vartanyan, S. A., Badanyan, Sh. O.

TITLE: The chemistry of vinylacetylene. Communication XXVII.
Hydration of vinylacetylene phenols and their esters

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 184-185,
abstract 17Zh119 (Izv. AN ArmSSR, Khim. n., v. 14, no. 5,
1961, 477-485 [summary in Arm.])

TEXT: The hydration of vinylacetylene phenols and their esters was
studied. When $\text{ROC}_6\text{H}_4\text{C}(\text{CH}_3)_2\text{C}\text{CCH}=\text{CH}_2$ (Ia-h; here and after a R = H,
b R = CH_3 , c R = C_2H_5 , d R = C_3H_7 , e R = iso- C_3H_7 , f R = C_4H_9 , g R = iso- C_4H_9 ,
h R = iso- C_5H_{11}) is heated in an aqueous or water-methanol solution in the
presence of H_2SO_4 and HgSO_4 , $\text{ROC}_6\text{H}_4\text{C}(\text{CH}_3)_2\text{COCH}=\text{CHCH}_3$ (IIa-h) is formed;
hydration may also proceed without the addition of H_2SO_4 , but is then
considerably slower. The structure of II obtained is confirmed by
ozonization, oxidation and hydrogenation of II. With prolonged hydration

Card 1/6 ✓

The chemistry of vinylacetylene...

S/081/62/000/017/046/102
B158/B186

in the presence of H_2SO_4 and $HgSO_4$ in CH_3OH , the lastnamed is combined with the II formed by a double bond, giving $ROC_6H_4C(CH_3)_2-COCH_2CH(OCH_3)CH_3$ (IIIa-h); increase in R facilitates the combination of CH_3OH with II. For example, in the case of hydration of If-h, the only reaction products are IIIIf-h. When III is heated in the presence of a catalytic quantity of $n-CH_3C_6H_4SO_3H$, the CH_3OH is separated and II is formed. A mixture of 20 g Ia (see I. N. Nazarov, A. I. Kuznetsova, Izv. AN SSSR. Otd. khim. n., 1941, 431; 1942, 392), 150 ml 90% CH_3OH , some drops of H_2SO_4 and 4 g $HgSO_4$ is heated and mixed for 3 hours at $60^\circ C$, the CH_3OH removed, extracted with ether, dried with $MgSO_4$, the ether driven off, and the product distilled in vacuum; 18.5 g IIIa is obtained, b.p. $173^\circ C/5$ mm, m.p. $56-57^\circ C$, n_D^{20} 1.5498. Without H_2SO_4 addition, the reaction described above lasts 18-20 hours to give the same yield of IIIa. IIIa is also obtained by heating 20 g Ia, 150 ml 5% H_2SO_4 .

Card 2/6

The chemistry of vinylacetylene...

S/081/62/000/017/046/102
B158/B186

and 2 g $HgSO_4$ for 3 hours at 50-55°C with further processing as described above, giving a yield of 19 g. Similarly, IIb-h is obtained by heating 20-25 g Ib-h (RZhKhim, 1961, 24Zh70) for 5-6 hours at 60-65°C and mixing with 150-200 ml 90% CH_3OH and 3-4 g $HgSO_4$. (The II is given, as well as the yield %, b.p. in °C/mm, $n_{D,4}^{20}$ and m.p. in °C of dinitrophenylhydrazone (DNPH): b, 87, 144/5, 1.5298, 1.0207, 137-132; c, 80, 151-152/7, 1.5262, 0.9957, 95; d, 86, 153/4, 1.5165, 0.9951, 133; e, 84, 155.5, 1.5140, 0.9956, 117; f, 79, 161/3, 1.5216, 0.9954, 86-87; g, 80, 159-160/4, 1.5198, 0.9948, -; h, 75, 167/3, 1.5110, 0.9952, does not crystallize. The yield of reaction products is lower without CH_3OH . II was obtained by extending the reaction described above to 15-20 hours at a temperature of 60-65°C and adding 4-5 ml H_2SO_4 to the reaction mass (the II is enumerated as above): b, 51, 155-156/2-3, 1.5083, 0.9998, 126-127; o, 50, 153/1, 1.5020, 0.9976, 103; d, 67, 163-165/2, 1.5042, 0.9970, 101; e, 64, 161-162/3, 1.5061, 0.9972, 122-123; f, 70, 182-183/4, 1.5048, 0.9963, does not crystallize; g, 75, 180-181/6, 1.5060, 0.9970, 127; h, 73, 189/6, 1.5055,

Card 3/6 ✓

The chemistry of vinylacetylene...

S/081/62/000/017/046/102
B158/B186

0.9958, does not crystallize. Heating (100-120°C, 15-20 min, weak vacuum) 10 g III with ~0.1 g n-CH₃C₆H₄SO₃H gives an 80-90% yield of II; the constants agreed with those of II obtained by hydrating I. The structure of II was confirmed by synthesizing IIc and IID from IIa. 10 g IIa, 3 g NaOH, 5-10 g of the corresponding alkyl halid and 80 ml water are heated for 10-15 hours, extracted with ether, washed with water, dried with MgSO₄, the ether drives off, and the product distilled in vacuum; the yield is 80%; the products are identical with the IIc and IID obtained by hydrating Ic and Id. Ozonized oxygen (5% O₃) is passed through a solution of 45 g IIb in 30 ml anhydrous CHCl₃ for 3.5 hours; this is stood for ~12 hours, 30 ml 5% H₂O₂ is added, heated and mixed for 5 hours at 50°C, neutralized with a solution of 10 g Na₂CO₃, extracted three times with ether, dried with MgSO₄ and distilled in vacuum; 0.18 g n-CH₃OC₆H₄C(CH₃)₂COH (IV), DNP (m.p. 173°C (from alcohol)), and 1 g IIb, b.p. 145°C/1 mm, ²⁰n_D 1.5075, are obtained. The residual aqueous solution is evaporated to

Card 4/6

The chemistry of vinylacetylene...

S/081/62/000/017/046/102
B158/B186

dryness, acidified with conc. HCl, extracted with ether, dried with $MgSO_4$, the ether driven off, and crystals of $n-CH_3OC_6H_4C(CH_3)_2COOH$ (V) are isolated - yield 0.8 g; m.p. $88^\circ C$ (from alcohol), mol. wt. 193. 18.5 g $KMnO_4$ (powder) is added to a mixture of 7.6 g IIb and 200 ml water and mixed thoroughly for 3 hours. The MnO_2 precipitate is filtered off, the mixture washed with hot water, the aqueous solutions extracted with ether, dried with $MgSO_4$, giving crystals of IV and DNPH, m.p. $173^\circ C$ (from alcohol).

The aqueous solution is processed as in the previous experiment; V, m.p. $88^\circ C$ (from alcohol) is obtained. With the previous sample, it does not cause any drop in the melting point. 3.g IIa in 10 ml alcohol is hydrated in the presence of a small quantity of Pt catalyst, the alcohol driven off, the residue distilled in vacuum, and 2.7 g

$n-HOC_6H_4C(CH_3)_2COCH_2CH_2CH_3$, $C_{13}H_{18}O_2$ obtained, b.p. $167^\circ C/5\text{ mm}$, n_D^{20} 1.5245, d_4^{20} 1.0363, and DNPH, m.p. $146-147^\circ C$ (from alcohol). Similarly, hydration ✓

Card 5/6

The chemistry of vinylacetylene...

S/081/62/000/017/046/102
B158/B186

of 3 g IIIf gave 2.5 g n-C₄H₉OC₆H₄C(CH₃)₂COCH₂CH₂CH₃, C₁₇H₂₆O₂, b.p.
156-157°C/5 mm, n_D²⁰ 1.5030, d₄²⁰ 0.9863, and DNPH, m.p. 110°C (from alcohol).
[Abstracter's note: Complete translation.]

Card 6/6

S/171/62/015/005/005/008
E071/E592

AUTHORS: Vartanyan, S.A., Zhamagortsyany, V.N. and Badanyan, Sh.O.
TITLE: Chemistry of vinylacetylene. Communidation 36:
Condensation of vinylacetylene and isopropenylacetylene
with aldehydes and ketones in the presence of powdered
potassium hydroxide without a solvent

PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya. Seriya
khimicheskikh nauk. v.15, no.5, 1962, 449-454

TEXT: The possibility of condensation of vinylacetylene and
isopropenylacetylene with ketones of aromatic, alicyclic, and
heterocyclic series, as well as with ketones containing functional
groups, e.g. hydroxy-;alkoxy- etc., was investigated. The method
consists of cooling powdered potassium hydroxide (in a three-
necked flask) with ice and salt, adding the required hydrocarbon
followed by an aldehyde or ketone at such a rate that the tempera-
ture does not exceed -5°C. It was found that using this method
vinylacetylene condenses with α -ketols, also with α - and
 γ -alkoxyketones, but not with β -alkoxyketones; isopropenylacetylene
condenses with aldehydes and ketones forming corresponding
vinylacetylene alcohols; alicyclic and heterocyclic ketones condense
Card 1/2

Chemistry of vinylacetylene ...

S/171/62/015/005/005/008
E071/E592

similarly with isopropylacetylene with the formation of corresponding carbinols; acetophenone and benzophenone condenses with vinylacetylene and isopropenylacetylene with the formation of the corresponding carbinols. Boiling points, refractive indexes, densities, yields and elementary analyses of the newly synthesized alcohols are given. There are 2 tables.

ASSOCIATION: Institut organicheskoy khimii AN ArmSSR
(Institute of Organic Chemistry AS ArmSSR)

SUBMITTED: August 10, 1962

Card 2/2

S/171/62/015/006/006/006
E075/E436

AUTHOR: Badanyan, Sh.O.

TITLE: All-Union Scientific Conference on the Problem of
"Syntheses from Acetylene"

PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya.
Khimicheskiye nauki, v.15, no.6, 1962, 571-573

TEXT: The conference was held in Yerevan from 19th to
23rd October 1962 with the purpose of reviewing the results of
research in the field of acetylene chemistry. The following
subjects were discussed. A.M.Gasparyan, Candidate of Technical
Sciences: The Chemical Industry of Armenia and the perspectives
of its development. A.A.Petrov, Doctor of Chemical Sciences:
The results of exhaustive study of the properties of mono-
unsaturated hydrocarbons in connection with their reactive
capacity. S.A.Vartanyan, Doctor of Chemical Sciences,
Sh.O.Badanyan, Candidate of Technical Sciences and
G.A.Musakhanyan, Candidate of Technical Sciences: The interaction
of halogenohydrocarbons with vinylacetylene alcohols and divinyl-
acetylene compounds. A.A.Petrov and Yu.I.Porfir'yeva: Rules
concerning the combination of halogens, halogenohydrocarbons and
Card 1/5

All-Union Scientific Conference ...

S/171/62/015/006/006/006
E075/E436

alkylhypobromites with mono- and diene systems. S.A.Vartanyan, A.O.Tosunyan, Candidate of Technical Sciences and L.G.Mesropyan: The interaction of chloroalkyl ethers with the unsaturated hydrocarbons. S.A.Vartanyan and Sh.O.Badanyan: The new rearrangement of vinylacetylene systems during nucleophilic substitution with amines of vinylacetylene halogen derivates and OMgX - group in Iotsich complexes. A.A.Petrov and B.S.Kupina, Candidate of Chemical Sciences: The hydration of disubstituted acetylenes. V.F.Kucherov, Doctor of Chemical Sciences and M.V.Navrov: The hydration of acetylenic alcohols in acetic acid in the presence of mercury acetate and also on the preparation of various acetylenic and cyclic products from acetylenic alcohols. S.A.Vartanyan, S.K.Bardapetyan and Sh.O.Badanyan, and also A.I.Kakhniashvili, Doctor of Chemical Sciences: The synthesis of aromatic vinylacetylenic and diene compounds and some of their conversions, in particular hydration, hydrogenation and combination with amines. S.A.Vartanyan, V.N.Shamagortsyan and L.G.Grigoryan: The preparation and conversions of acetylenic tetrahydro- γ -pyranols. S.A.Vartanyan and Sh.L.Shagbatyan:
Card 2/5

S/171/62/015/006/006/006
All-Union Scientific Conference ... E075/E436

Doctor of Chemical Sciences, M.G.Indzhikyan, Candidate of Chemical Sciences, A.A.Grignyan, Candidate of Chemical Sciences et al: Research in the field of quaternary ammonium compounds. R.M.Flid, Doctor of Chemical Sciences and O.N.Temkina: The perspectives of the utilization of acetylene for the synthesis of fluorine containing unsaturated compounds, in particular fluoroethylene, fluoroprene etc. S.G.Matsoyan, Candidate of Chemical Sciences: The cyclic polymerisation of vinylacetylenic alcohols. S.G.Matsoyan, M.G.Avetyan, Candidate of Chemical Sciences and E.G.Darbinyan: The cyclic polymerisation of divinylketones. N.I.Shuykin and N.A.Karakhan: The synthesis of furan compounds from acetylene. R.A.Melkonyan, Candidate of Chemical Sciences and A.G.Sukiasyan: The possibility of using dissolved acetylene directly for the synthesis of monomers. S.A.Vartanyan, S.K.Pirenyan: A new method for the synthesis of acetaldehyde without using the poisonous salts of Hg. G.A.Chukhadzhyan: The synthesis of butenediol and other acetylenic alcohols in the presence of copper acetylidyde and cuprous oxide under atmospheric pressures. D.V.Sokol'skiy,

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Card 4/5

BADANYAN, Sh.O.

46

PHASE I BOOK EXPLOITATION

SOV/6195

Nauchnaya konferentsiya institutov khimii Akademiy nauk Azerbaydshanskoy, Armyanskoy i Gruzinskoy SSR. Yerevan, 1957.

Materialy nauchnoy konferentsii institutov khimii Akademiy nauk Azerbaydzhanskoy, Armyanskoy i Gruzinskoy SSR (Materials of the Scientific Conference of the Chemical Institutes of the Academies of Sciences of the Azerbaydzhan, Armenian, and Georgian SSR) Yerevan, Izd-vo AN Armyanskoy SSR, 1962. 396 p. 1100 copies printed.

Sponsoring Agency: Akademiya nauk Armyanskoy SSR. Institut organicheskoy khimii.

Resp. Ed.: L. Ye. Ter-Minasyan; Ed. of Publishing House: A. G. Slikuni; Tech. Ed.: G. S. Sarkisyan.

PURPOSE: This book is intended for chemists and chemical engineers, and may be useful to graduate students engaged in chemical research.

COVERAGE: The book contains the results of research in physical, inorganic, organic, and analytical chemistry, and in chemical engineering, presented at the Scientific Conference held in Yerevan, 20 through 23 November 1957. Three reports of particular interest are reviewed below. No personalities are mentioned. References accompany individual articles.

Materials of the Scientific Conference (Cont.)

SOV/6195

silicate mineral) as a catalyst carrier have been determined. The study was of interest because this petroleum fraction is used as diesel and jet fuel and is degraded for these purposes by the presence of n-alkanes. Optimum conversion conditions were obtained with hydrogenation under 30 atm. H in a flow reactor at 450°C with a hydrogen/hydrocarbon molar ratio of 3: 1 and a hydrocarbon space velocity of 0.5 hr⁻¹. Catalysis with 0.5% of Pt or Pd on Al₂O₃ or "gumbrin" caused an extensive conversion of normal undecane and dodecane and improved the motor properties of hydrogenation-cracking products by increasing their heating efficiency by 80 kcal/kg and reducing their pour points by 16 to 48.5°C.

Mamadaliev, Yu. G., M. A. Dalin, and T. I. Mamadov. Cata-
lytic Dehydrogenation of the Isopentane Fraction

324

Vartanyan, S. A., V. N. Zhamagortsyan, and Sh. O. Bidanyan.
Synthesis and Investigation of Aminoacetylenic and α -Alko-
xyvinylacetylenic Alcohols

336

Card 9/11

2/2

VARTANYAN, S.A.; VARDAPETYAN, S.K.; BADANYAN, Sh.O.

Chemistry of vinylacetylene. Part 30: Synthesis and
transformations of vinylacetylenic cresols and their ethers.
Zhur.ob.khim. 32 no.10:3188-3195 0 '62. (MIRA 15:11)

1. Institut organicheskoy khimii AN Armyanskoy SSR.
(Butenyne) (Ethers)

VARTANYAN, S.A.; BADANYAN, Sh.O.; MUSAKHANYAN, G.A.

Chemistry of vinylacetylene. Report No.38: Hydrochlorination
of vinylisopropenylacetylene, dimethylvinylethyneylcarbinol,
and dimethylvinylthynylchloromethane in the presence of various
catalysts. Izv. AN Arm.SSR. Khim. nauki 16 no.1:19-29 '63
(MIRA 17:8)

1. Institut organicheskoy khimii AN Armyanskoy SSR.

VARTANYAN, S.A.; VARDAPETYAN, S.K.; BADANYAN, Sh.O.

Chemistry of vinylacetylene. Report No. 44: Alkylation of
an aromatic ring with diene dichlorides and chloroalcohols.
Izv. AN Arm. SSR. Khim. nauki 16 no.5:507-514 '63.

1. Institut organicheskoy khimii AN Armyanskoy SSR. (MIRA 17:1)

VARTANYAN, S.A.; OGANOVA, L.V.; BADANYAN, Sh.O.

Interaction of alcohols with diacetylenic alcohols and
glycols. Izv. AN Arm. SSR. Khim. nauki 16 no.5:515-516
'63. ..
(MIRA 17:1)

VARTANYAN, S.A.; BADANYAN, Sh.P.; MUSHEGYAN, A.V.

Chemistry of vinylacetylene. Report No. 45: Synthesis and conversion of vinylacetylenic amines (acetylene-allene-cumulene rearrangement in vinylacetylenic systems). Izv. AN Arm. SSR Khim nauki 16 no.6:547-557 '63 (MIRA 17:8)

1. Institut organicheskoy khimii AN ArmSSR.

VARTANYAN, S.A.; BADANYAN, Sh.O.; AGABABYAN, R.G.

Addition of dimethylamine to acetylenic alcohols. Izv.AN Arm.
SSR,Khim,nauki 17 no. 2:191-195 '64. (MIRA 17:6)

1. Institut organicheskoy khimii AN Armyanskoy SSR.

VARTANYAN, S.A.; BADANYAN, Sh.O.; AGABABYAN, R.G.

Chemistry of vinylacetylene. Part 51: Addition of amines to
dialkylaminomethylvinylacetylenes. Izv. AN Arm.SSR.Khim.nauki
17 no.4:407-411 "64. (MIRA 18'6)

1. Institut organicheskoy khimii AN ArSSR.

L 23077-65 EWT(m)/EPF(c)/SWP(j) PC-L/Pr... RPL JW/RM

ACCESSION NR: AP4049822

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AUTHOR: Vartanyan, S. A.; Badanyan, Sh. O.; Mushegyan, A. V.

TITLE: Vinylacetylenechemistry. I.II. Acetylene-allene-cumulene rearrangement during the nucleophilic substitution of chlorine by amines in methylethyl-vinylethynylchloromethane

SOURCE: AN ArmSSR. Izvestiya. Khimicheskie nauki, v. 17, no. 5, 1964, 505-512

TOPIC TAGS: methylethylvinylethynechloromethane, allene amine, cumulene amine, vinylacetylene, acetylene rearrangement, nucleophilic substitution

ABSTRACT: This is a continuation of a study on the nucleophilic substitution of chlorine by amines in dimethyl-vinylethynechloromethane, resulting in vinylacetylene amines together with their isomeric allene and cumulene amines. Applying the same reaction with dimethylamine to methylethylvinylethynechloromethane [$\text{CH}_3(\text{C}_2\text{H}_5)\text{CClC}\equiv\text{CCH}=\text{CH}_2$] (I), similar results were obtained; i. e. along with vinylacetylene amine [$\text{CH}_2(\text{C}_2\text{H}_5)\text{C}(\text{NRR})\text{CClC}\equiv\text{CH}_2$] (II), the allene amine $\text{CH}_3\text{C}(\text{C}_2\text{H}_5)=\text{C}(\text{NRR})\text{CH}_2\text{Cl}$ and the cumulene amine $\text{CH}_3\text{C}(\text{C}_2\text{H}_5)-\text{C}(\text{NRR})\text{CH}_2\text{CH}_2\text{Cl}$ (IV) were formed. These structures were proven by the infrared absorption spectra and some transformations of these compounds. When compound (II) was hydrogenated in absolute ethanol on a platinum catalyst, it yielded 3-dimethylamino-3-methylheptane. Hydrogenation of (IV) produced the corresponding compound. The re-

Card 1/2

L 23077-65

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action of aniline with (I) also produced (IV). The hydration products of (II) and (IV) are also described. Orig. art. has: 4 figures, and 8 chemical formulas.

ASSOCIATION: Institut organicheskoy khimii AN ArmSSR (Institute of Organic Chemistry, AN ArmSSR)

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